LIST OF CONTENTS

VOLUME 71 NUMBER 1 — 1996

M. Buttini, K. Appel, A. Sauter, P.-J. Gebicke-Haerter and **H. W. G. M. Boddeke**	Expression of tumor necrosis factor alpha after focal cerebral ischaemia in the rat	1
M. Okada, T. Amamoto, M. Tomonaga, A. Kawachi, K. Yazawa, K. Mine and **M. Fujiwara**	The chronic administration of docosahexaenoic acid reduces the spatial cognitive deficit following transient forebrain ischemia in rats	17
P. K. Stys and **H. Lesiuk**	Correlation between electrophysiological effects of mexiletine and ischemic protection in central nervous system white matter	27
A. J. McDonald and **F. Mascagni**	Cortico-cortical and cortico-amygdaloid projections of the rat occipital cortex: a *Phaseolus vulgaris* leucoagglutinin study	37
A. J. McDonald, F. Mascagni and **L. Guo**	Projections of the medial and lateral prefrontal cortices to the amygdala: a *Phaseolus vulgaris* leucoagglutinin study in the rat	55
F. Torrealba and **C. Müller**	Glutamate immunoreactivity of insular cortex afferents to the nucleus tractus solitarius in the rat: a quantitative electron microscopic study	77
S. Chen, R. Bing, N. Rosenblum and **D. E. Hillman**	Immunohistochemical localization of Lyn (p56) protein in the adult rat brain	89
M. E. Kriebel, F. Llados and **J. Vautrin**	Hypertonic treatment reversibly increases the ratio of giant skew-miniature endplate potentials to bell-miniature endplate potentials	101
F. Martini-Luccarini, J.-C. Reynaud and **J.-J. Puizillout**	Effects of tachykinins on identified dorsal vagal neurons: an electrophysiological study *in vitro*	119
Z. Li and **A. V. Ferguson**	Electrophysiological properties of paraventricular magnocellular neurons in rat brain slices: modulation of I_A by angiotensin II	133
M. Lepore and **K. B. J. Franklin**	*N*-Methyl-D-aspartate lesions of the pedunculopontine nucleus block acquisition and impair maintenance of responding reinforced with brain stimulation	147
S. Consolo, P. Baronio, G. Guidi and **G. Di Chiara**	Role of the parafascicular thalamic nucleus and *N*-methyl-D-aspartate transmission in the D_1-dependent control of *in vivo* acetylcholine release in rat striatum	157
V. M. Pickel and **A. Heras**	Ultrastructural localization of Calbindin-D_{28k} and GABA in the matrix compartment of the rat caudate–putamen nuclei	167
E. J. Mufson, J. S. Kroin, Y.-T. Liu, T. Sobreviela, R. D. Penn, J. A. Miller and **J. H. Kordower**	Intrastriatal and intraventricular infusion of brain-derived neurotrophic factor in the cynomologous monkey: distribution, retrograde transport and co-localization with substantia nigra dopamine-containing neurons	179
W. Lam, A. L. Gundlach and **A. J. M. Verberne**	Increased nerve growth factor-inducible-A gene and c-*fos* messenger RNA levels in the rat midbrain and hindbrain associated wlth the cardiovascular response to electrical stimulation of the mesencephalic cuneiform nucleus	193

L. Greensmith, J. Dick, A. O. Emanuel and **G. Vrbová**	Induction of transmitter release at the neuromuscular junction prevents motoneuron death after axotomy in neonatal rats	213
H. Tojo, K. Takami, Y. Kaisho, M. Nakata, T. Abe, O. Shiho and **K. Igarashi**	Analysis of neurotrophin-3 expression using the *lacZ* reporter gene suggests its local mode of neurotrophic activity	221
K. Trok, B. Hoffer and **L. Olson**	Glial cell line-derived neurotrophic factor enhances survival and growth of prenatal and postnatal spinal cord transplants	231
M. E. Goldstein, P. Grant, S. B. House, D. B. Henken and **H. Gainer**	Developmental regulation of two distinct neuronal phenotypes in rat dorsal root ganglia	243
J.-F. Wang, S. G. Khasar, S. C. Ahlgren and **J. D. Levine**	Sensitization of C-fibres by prostaglandin E_2 in the rat is inhibited by guanosine 5′-*O*-(2-thiodiphosphate), 2′.5′-dideoxyadenosine and Walsh inhibitor peptide	259
M. S. Gold, S. Dastmalchi and **J. D. Levine**	Co-expression of nociceptor properties in dorsal root ganglion neurons from the adult rat *in vitro*	265
F. Wei and **Z.-Q. Zhao**	Blockade of capsaicin-induced reduction of GABA-immunoreactivity by spantide in cat spinal superficial dorsal horn	277
A. Lecci, R. Patacchini, R. De Giorgio, R. Corinaldesi, E. Theodorsson, S. Giuliani, P. Santicioli and **C. A. Maggi**	Functional, biochemical and anatomical changes in the rat urinary bladder induced by perigangliar injection of colchicine	285
ERRATUM		297

VOLUME 71 NUMBER 2 1996

J. Mysliveček, J. Hassmannová, J. Barcal, J. Šafanda and **V. Žalud**	Inhibitory learning and memory in newborn rats influenced by nitric oxide	299
A. Casanovas, J. Ribera, M. Hukkanen, V. Riveros-Moreno and **J. E. Esquerda**	Prevention by lamotrigine, MK-801 and N^{ω}-nitro-L-arginine methyl ester of motoneuron cell death after neonatal axotomy	313
S. T. Meller, C. Dykstra and **G. F. Gebhart**	Acute thermal hyperalgesia in the rat is produced by activation of *N*-methyl-D-aspartate receptors and protein kinase C and production of nitric oxide	327
P. J. Smet, J. Jonavicius, V. R. Marshall and **J. De Vente**	Distribution of nitric oxide synthase-immunoreactive nerves and identification of the cellular targets of nitric oxide in guinea-pig and human urinary bladder by cGMP immunohistochemistry	337
C. O. Okere, H. Kaba and **T. Higuchi**	Formation of an olfactory recognition memory in mice: reassessment of the role of nitric oxide	349
K. Ohno, Y. Kawasaki, T. Kubo and **M. Tohyama**	Differential expression of odorant-binding protein genes in rat nasal glands: implications for odorant-binding $protein_{II}$ as a possible pheromone transporter	355
T. I. Toth and **V. Crunelli**	The theoretical basis for non-exponential time-course of the recovery from inactivation of Hodgkin–Huxley-type ionic currents	367

M. F. Montaron, J. M. Deniau, A. Menetrey, J. Glowinski and **A. M. Thierry**	Prefrontal cortex inputs of the nucleus accumbens-nigro-thalamic circuit	371
J. M. Delfs, V. M. Ciaramitaro, J.-J. Soghomonian and **M.-F. Chesselet**	Unilateral nigrostriatal lesions induce a bilateral increase in glutamate decarboxylase messenger RNA in the reticular thalamic nucleus	383
Y.-X. Li, R. Bertram and **J. Rinzel**	Modeling *N*-methyl-D-aspartate-induced bursting in dopamine neurons	397
M. Diana, M. Pistis, A. Muntoni and **G. Gessa**	Mesolimbic dopaminergic reduction outlasts ethanol withdrawal syndrome: evidence of protracted abstinence	411
B. Givens	Behavioral correlates of single units in the medial septal area: the effect of ethanol	417
E. J. Van Bockstaele, E. E. O. Colago and **V. M. Pickel**	Enkephalin terminals form inhibitory-type synapses on neurons in the rat nucleus locus coeruleus that project to the medial prefrontal cortex	429
S. Chen and **G. Aston-Jones**	Extensive projections from the midbrain periaqueductal gray to the caudal ventrolateral medulla: a retrograde and anterograde tracing study in the rat	443
L. C. Abbott, K. R. Isaacs and **J. A. Heckroth**	Co-localization of tyrosine hydroxylase and Zebrin II immunoreactivities in Purkinje cells of the mutant mice, *tottering* and *tottering/leaner*	461
D. N. Darlington, R. E. Mains and **B. A. Eipper**	Location of neurons that express regulated endocrine-specific protein-18 in the rat diencephalon	477
P. Verkade, A. J. Verkleij, W. G. Annaert, W. H. Gispen and **A. B. Oestreicher**	Ultrastructural localization of B-50/growth-associated protein-43 to anterogradely transported synaptophysin-positive and calcitonin gene-related peptide-negative vesicles in the regenerating rat sciatic nerve	489
H. J. Duckers, R. P. van Dokkum, J. Verhaagen, F. H. Lopes da Silva and **W. H. Gispen**	Functional and neurophysiological evidence of the efficacy of trophic pharmacotherapy using an adrenocorticotrophic hormone$_{4\text{-}9}$ analog in experimental allergic encephalomyelitis, an animal model of multiple sclerosis	507
L.-C. Yu, P. Hansson and **T. Lundeberg**	The calcitonin gene-related peptide antagonist CGRP$_{8\text{-}37}$ increases the latency to withdrawal responses bilaterally in rats with unilateral experimental mononeuropathy, an effect reversed by naloxone	523
G. Scott and **B. Rusak**	Activation of hamster suprachiasmatic neurons *in vitro* via metabotropic glutamate receptors	533
Q. Sun, S. Pretel, C. D. Applegate and **D. T. Piekut**	Oxytocin and vasopressin mRNA expression in rat hypothalamus following kainic acid-induced seizures	543
S. Brimijoin and **P. Hammond**	Transient expression of acetylcholinesterase messenger RNA and enzyme activity in developing rat thalamus studied by quantitative histochemistry and *in situ* hybridization	555
M. E. Jiménez-Capdeville and **R. W. Dykes**	Changes in cortical acetylcholine release in the rat during day and night: differences between motor and sensory areas	567
S. Akhondzadeh and **T. W. Stone**	Muscimol-induced long-term depression in the hippocampus: lack of dependence on extracellular calcium	581

C. L. Willard-Mack, R. C. Koehler, T. Hirata, L. C. Cork, H. Takahashi, R. J. Traystman and **S. W. Brusilow**	Inhibition of glutamine synthetase reduces ammonia-induced astrocyte swelling in rat	589
S. Patt, C. Labrakakis, M. Bernstein, P. Weydt, J. Cervós-Navarro, G. Nisch and **H. Kettenmann**	Neuron-like physiological properties of cells from human oligodendroglial tumors	601

VOLUME 71 NUMBER 3 1996

G. Bagetta, M. Iannone, E. Palma, G. Nisticò and **J. O. Dolly**	*N*-Methyl-D-aspartate and non-*N*-methyl-D-aspartate receptors mediate seizures and CA1 hippocampal damage induced by dendrotoxin-K in rats	613
K. A. Alkadhi and **L.-M. Tian**	Veratridine-enhanced persistent sodium current induces bursting in CA1 pyramidal neurons	625
L. Seress and **C. Leranth**	Distribution of substance P-immunoreactive neurons and fibers in the monkey hippocampal formation	633
T. Deller, R. Nitsch and **M. Frotscher**	Layer-specific sprouting of commissural fibres to the rat fascia dentata after unilateral entorhinal cortex lesion: a *Phaseolus vulgaris* leucoagglutinin tracing study	651
V. S. Fénelon and **A. E. Herbison**	*In vivo* regulation of specific $GABA_A$ receptor subunit messenger RNAs by increased GABA concentrations in rat brain	661
A. Mansour, S. Burke, R. J. Pavlic, H. Akil and **S. J. Watson**	Immunohistochemical localization of the cloned κ_1 receptor in the rat CNS and pituitary	671
B. Schlösser, A. Müller, B. Sutor and **G. Ten Bruggencate**	1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine-induced dopaminergic denervation potentiates GABAergic inhibition in the mouse neostriatum *in vitro*	691
M. C. Olmstead and **K. B. J. Franklin**	Differential effects of ventral striatal lesions on the conditioned place preference induced by morphine or amphetamine	701
V. Seutin, K.-Z. Shen, R. A. North and **S. W. Johnson**	Sulfonylurea-sensitive potassium current evoked by sodium-loading in rat midbrain dopamine neurons	709
C. Deransart, C. Marescaux and **A. Depaulis**	Involvement of nigral glutamatergic inputs in the control of seizures in a genetic model of absence epilepsy in the rat	721
J. L. Góngora-Alfaro, S. Hernández-López, D. Martínez-Fong, G. Flores and **J. Aceves**	Circling behavior elicited by cholinergic transmission in the substantia nigra pars compacta: involvement of nicotinic and muscarinic receptors	729
F. Presse, I. Sorokovsky, J.-P. Max, S. Nicolaidis and **J.-L. Nahon**	Melanin-concentrating hormone is a potent anorectic peptide regulated by food-deprivation and glucopenia in the rat	735
J. Raber and **F. E. Bloom**	Arginine vasopressin release by acetylcholine or norepinephrine: region-specific and cytokine-specific regulation	747
M. H. Tuszynski, E. Mafong and **S. Meyer**	Central infusions of brain-derived neurotrophic factor and neurotrophin-4/5, but not nerve growth factor and neurotrophin-3, prevent loss of the cholinergic phenotype in injured adult motor neurons	761

E. Agius, Y. Sagot, A. M. Duprat and **P. Cochard**	Antibodies directed against the β1-integrin subunit and peptides containing the IKVAV sequence of laminin perturb neurite outgrowth of peripheral neurons on immature spinal cord substrata	773
V. Mayeux, F. Pons, M. Baldy-Moulinier and **J. Valmier**	Early postnatal muscle contractile activity regulates the carbonic anhydrase phenotype of proprioceptive neurons in young and mature mice: evidence for a critical period in development	787
E. J. Ramcharan and **M. R Matthews**	Autoradiographic localization of functional muscarinic receptors in the rat superior cervical sympathetic ganglion reveals an extensive distribution over non-synaptic surfaces of neuronal somata, dendrites and nerve endings	797
J. M. Finnegan, R. Borges, and **R. M. Wightman**	Comparison of cytosolic Ca^{2+} and exocytosis responses from single rat and bovine chromaffin cells	833
W. A. Staines, J. Craig, K. Reuhl and **M. W. McBurney**	Retinoic acid treated P19 embryonal carcinoma cells differentiate into oligodendrocytes capable of myelination	845
S. Peuchen, M. R. Duchen and **J. B. Clark**	Energy metabolism of adult astrocytes *in vitro*	855
S. Peuchen, J. B. Clark and **M. R. Duchen**	Mechanisms of intracellular calcium regulation in adult astrocytes	871
M. K. Storch, R. Fischer-Colbrie, T. Smith, W. A. Rinner, W. F. Hickey, M. L. Cuzner, H. Winkler and **H. Lassmann**	Co-localization of secretoneurin immunoreactivity and macrophage infiltration in the lesions of experimental autoimmune encephalomyelitis	885
MATTERS ARISING		
P. Brundin, R. A. Fricker and **N. Nakao**	Paucity of P-zones in striatal grafts prohibit commencement of clinical trials in Huntington's disease	895
M. Peschanski, P. Césaro and **P. Hantraye**	What is needed versus what would be interesting to know before undertaking neural transplantation in patients with Huntington's disease	899
BOOK REVIEW		
S. Watson	*Methods in Enzymology:* Vol. 255, *Small GTPases and their Regulators. Part A: Ras family*; Vol. 256, *Small GTPases and their Regulators. Part B: Rho family.* Edited by W. E. Balch, C. J. Der and A. Hall	901

VOLUME 71 NUMBER 4 1996

M. Vila, R. Levy, M.-T. Herrero, B. Faucheux, J. A. Obeso, Y. Agid and **E. C. Hirsch**	Metabolic activity of the basal ganglia in parkinsonian syndromes in human and non-human primates: a cytochrome oxidase histochemistry study	903
J. E. Brecknell, N. S. K. Haque, J.-S. Du, E. M. Muir, P. S. Fidler, M.-L. Hlavin, J. W. Fawcett and **S. B. Dunnett**	Functional and anatomical reconstruction of the 6-hydroxydopamine lesioned nigrostriatal system of the adult rat	913
J. N. Nobrega, A. Richter, N. Tozman, D. Jiwa and **W. Löscher**	Quantitative autoradiography reveals regionally selective changes in dopamine D_1 and D_2 receptor binding in the genetically dystonic hamster	927

C. Contant, D. Umbriaco, S. Garcia, K. C. Watkins and **L. Descarries**	Ultrastructural characterization of the acetylcholine innervation in adult rat neostriatum	937
R. S. Petralia, Y.-X. Wang, A. S. Niedzielski and **R. J. Wenthold**	The metabotropic glutamate receptors, mGLUR2 and mGLUR3, show unique postsynaptic, presynaptic and glial localizations	949
G. Debonnel, R. Bergeron, F. P. Monnet and **C. De Montigny**	Differential effects of sigma ligands on the *N*-methyl-D-aspartate response in the CA1 and CA3 regions of the dorsal hippocampus: effect of mossy fiber lesioning	977
A. Schmitt, E. Asan, B. Püschel, Th. Jöns and **P. Kugler**	Expression of the glutamate transporter GLT1 in neural cells of the rat central nervous system: non-radioactive *in situ* hybridization and comparative immunocytochemistry	989
M. Papa and **M. Segal**	Morphological plasticity in dendritic spines of cultured hippocampal neurons	1005
N. C. Day, P. J. Shaw, A. L. McCormack, P. J. Craig, W. Smith, R. Beattie, T. L. Williams, S. B. Ellis, P. G. Ince, M. M. Harpold, D. Lodge and **S. G. Volsen**	Distribution of α_{1A}, α_{1B} and α_{1E} voltage-dependent calcium channel subunits in the human hippocampus and parahippocampal gyrus	1013
D. A. P. Evans, J. P. H. Burbach, D. F. Swaab and **F. W. Van Leeuwen**	Mutant vasopressin precursors in the human hypothalamus: evidence for neuronal somatic mutations in man	1025
Y. Watanabe, Y. Ikegaya, H. Saito and **K. Abe**	Opposite regulation by the β-adrenoceptor–cyclic AMP system of synaptic plasticity in the medial and lateral amygdala *in vitro*	1031
S. A. Reeves, K. Ueki, B. Sinha, M. DiFiglia and **D. N. Louis**	Regional expression and subcellular localization of the tyrosine-specific phosphatase SH-PTP2 in the adult human nervous system	1037
J. B. Schulz, R. T. Matthews, D. R. Henshaw and **M. F. Beal**	Neuroprotective strategies for treatment of lesions produced by mitochondrial toxins: implications for neurodegenerative diseases	1043
B. Zhu and **J. Herbert**	Behavioural, autonomic and endocrine responses associated with c-*fos* expression in the forebrain and brainstem after intracerebroventricular infusions of endothelins	1049
S. C. Bressler and **M. J. Baum**	Sex comparison of neuronal Fos immunoreactivity in the rat vomeronasal projection circuit after chemosensory stimulation	1063
M. Tallent, G. Liapakis, A.-M. O'Carroll, S. J. Lolait, M. Dichter and **T. Reisine**	Somatostatin receptor subtypes SSTR2 and SSTR5 couple negatively to an L-type Ca^{2+} current in the pituitary cell line AtT-20	1073
K. O. Aley, E. Kinnman and **J. D. Levine**	Delayed sympathectomy after a prolonged hyperalgesia results in a subsequent enhanced acute hyperalgesic response	1083
S. W. N. Thompson, A. Dray and **L. Urban**	Leukemia inhibitory factor induces mechanical allodynia but not thermal hyperalgesia in the juvenile rat	1091
V. Neugebauer, P. Rümenapp and **H.-G. Schaible**	Calcitonin gene-related peptide is involved in the spinal processing of mechanosensory input from the rat's knee joint and in the generation and maintenance of hyperexcitability of dorsal horn neurons during development of acute inflammation	1095

F. de Bilbao and **M. Dubois-Dauphin**	Time course of axotomy-induced apoptotic cell death in facial motoneurons of neonatal wild type and *bcl*-2 transgenic mice	1111
E. Benoit, P. Juzans, A.-M. Legrand and **J. Molgo**	Nodal swelling produced by ciguatoxin-induced selective activation of sodium channels in myelinated nerve fibers	1121
K. S. Topp, K. Bisla, N. D. Saks and **J. H. LaVail**	Centripetal transport of herpes simplex virus in human retinal pigment epithelial cells *in vitro*	1133
K. A. Huber, K. Kriegistein and **K. Unsicker**	A chromaffin cell-derived protein induces the NADPH-diaphorase phenotype in cultured rat spinal cord neurons	1145
M. Jucker, M. Tian, D. D. Norton, C. Sherman and **J. W. Kusiak**	Laminin $\alpha 2$ is a component of brain capillary basement membrane: reduced expression in dystrophic *dy* mice	1153
G. N. Akoev, L. V. Filippova and **N. O. Sherman**	Mast cell mediators excite the afferents of cat small intestine	1163